

IN THE SPECIFICATION

Please amend the paragraph at page 6, lines 20-26, as follows:

Data representing information material such as images are often processed in order to convert the data from one form to another, so that, for example the images can be compression encoded and decoded. A further example in which images may be processed is if the images are ~~convert~~ converted into another form using transform processing. Such transforms may be, for example, the Discrete Wavelet Transform or the Discrete Fourier or Cosine Transform. A result of processing the material[[,]] can cause the data representing the material to be shifted, in particular in the transform domain.

Please amend the paragraph at page 18, line 13 to page 19, line 3, as follows:

The control processor 332 controls the correlation of the data symbols (wavelet coefficients) read from the sub-band of the image in the frame store 331 with the PRBS in accordance with equation (2). However as explained, the image may have suffered a shift in the spatial domain, with the effect that a corresponding shift has occurred in the wavelet domain. For the example of the wavelet transform, a shift of two pixels of the image in the spatial domain will cause a shift of one wavelet coefficient for a level one wavelet. Therefore, a shift of 0, ± 1 , ± 2 , ± 3 wavelet coefficients is representative of a shift of 0, ± 2 , ± 4 , and ± 6 pixels of the image in the spatial domain. However, the control processor is arranged to accommodate possible shifts of the image, so that the PRBS in the correlator can be aligned with the modulated PRBS added to the wavelet coefficients. The operation of the correlator 330 in order to recover the embedded data is illustrated in Figures 11, 12, 13 and 14. In Figure 11, the wavelet transformed image WT_IMG^1 as produced by the wavelet transformer 310 is shown in the form as it would appear as an illustrative example in the frame store 331. The representation shown in Figure 11 corresponds to the representation shown in Figure 8. For simplicity of explanation, only the high horizontal, low vertical frequencies sub-band will be considered, although it will be appreciated that the data will be recovered from the high vertical, low horizontal frequencies sub-band hH_1lV_1 in a similar way. As illustrated the image has suffered a shift to the left SHFT, with the effect that the wavelet coefficients LST at the left hand edge of the sub-band have been lost.

Please amend the paragraph at page 15, line 27 to page 16, line 11, as follows:

As illustrated in Figure 15 a number of copies of the PRBS used to embed the data in the transform domain are generated by the PRBS generator 520 and fed via the connecting channel 325 to the data sequence processor 532. The number of PRBS copies generated corresponds to the number of possible shifts of the data within the sub-band which can be tolerated. For each of these tolerated shifts, the embedded data may still be recovered. As illustrated in Figure 15 the possible integer shifts INT_SHFT are shown alongside a corresponding version of the PRBS which has been shifted with respect to a central PRBS CENT_P. Effectively, therefore for the illustrative embodiment shown in Figure 15, a shift of ± 2 symbols can be tolerated and the embedded data symbols can still be detected from the output of the correlation signal. The five versions of the PRBS at each of -2, -1, 0, +1, +2 shifts are then combined together to form a composite data sequence which forms the correlation data sequence CORR_SEQ. It is the correlation data sequence CORR_SEQ which is supplied by the data sequence processor 532 to the data processor 534 under control of the correlation processor 533, which interacts with frame store 531, to generate the correlation output from which the embedded data symbols can be recovered.

Please delete the abstract on page 39, lines 1-22, and replace it with the following new Abstract: